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GROUND RULES FOR THE 21ST CENTURY
Chapter 21

THE WINNER TAKES IT ALL

In this chapter two of today's core, but apparently conflicting drivers meet:

On the one hand, everyone is acquiring better opportunities to be participants, co-creators and co-responsible - on the other hand, the world's wealth is increasingly concentrated among a small group of ultra rich.

On the one hand, billions of people in developing countries have moved out of poverty in recent decades, and in the industrialized countries hundreds of millions have moved up from arduous and boring factory work to more stimulating and skilled jobs. An amazing economic boost has taken place, and many more people have been able to take responsibility, be creative and participate in shaping what they do and what they consume.

On the other hand, the rich have never been richer, and the disparity between society's top and bottom has grown rapidly over the past 30 years. In Western countries it seems that income for those with low or middle incomes have risen very little since the 1980s, while the wealthiest have been getting considerably more - and specifically, the very richest have taken a much bigger slice of the pie. Meanwhile, people in the U.S. and Europe have taken on exceedingly high loads of debt. Borrowing in houses largely financed the boom in consumption of the recent decades, when it seemed that the value of real estate could grow into infinity.

The growing inequality is a global trend and it is very well documented. The U.S. business magazine Forbes produces an annual list of the 400 richest people on the planet. In 1982, their combined wealth was 92 billion dollars. In 2006 the 400 richest owned a total of 1.250 billion dollars.

Economic distribution in a country is normally measured with the *Gini coefficient* - a number between 0 and 1. The higher the number, the greater the inequality. A coefficient of 1 would mean that one person owned everything in the entire country. The most unequal country in the world is Namibia with a Gini coefficient of 0.70. Denmark is at the other end of the scale. The Danish figure is 0.24, and it makes Denmark the most economically equal country in the world. Generally, inequalities have grown considerably since the eighties. In the U.S., the Gini coefficient in 1974 was 0.39. In 2006 it had risen to 0.47. Likewise in the UK, the Gini coefficient rose from 0.25 in 1979 to 0.35 in 2006.

However, inequality is increasing in Denmark as well. According to the Danish Ministry of Finance the Gini coefficient increased from 19.8 in 1994 to 23.3 in 2005, and the trend seems to have been reinforced in recent years.

When it comes to the distribution of incomes has not become more inclusive. There has been a sharp pull in the opposite direction: the rich have got an even bigger proportion of income and the higher you reach among the richest, the

greater the growth in income has been.

You would think that the world would become more equal when we all can communicate and participate. But actually, a very strong polarization is taking place. On the one hand, there has been democratization. Customers have gained greater influence on products, and it has become possible even for small suppliers to make contributions of real value to a very large market.

On the other hand, the relationship between the participants is not exactly equal. Out of the millions of small suppliers that contribute to the value of commercial Web services such as YouTube, Apple's App-store, Second Life, etc., only a fraction ever make money on it. There are many more vendors and much more to choose from in *the long tail*, but the real money is earned by a very small group of very large companies that own the platforms, which the many small players are interacting on. Thus, we are in the paradoxical situation that the market becomes more equal *and* more unequal, more diverse *and* more uniform at the same time.

The Winner Takes all

In the book with the apt title: *The Winner-Take-All Society*, the economists Robert Frank and Philip Cook focus on situations in which very small differences in performance translate into very large differences in economic reward.

In a lawsuit between two companies many millions of dollars can be at stake.

Therefore it is important to have the best lawyer - and he's really expensive. You could choose a less good lawyer instead, at perhaps one tenth of the price. But if your opponent hires the best lawyer and wins, it would end up being expensive to save on the attorney fees. Therefore, the very best lawyers get outrageous salaries though they are only marginally better than the second best.

The lawsuit is a situation in which someone wins at the expense of some one else who loses - a classic example of a zero sum game. Another example is the 100-meter race for men - or any other Olympic sport discipline. There is only one Olympic gold medalist, and he gets all the attention. No one remembers number two. The media has no room to mention more than one great runner and any company that wants their logo displayed will obviously prefer to be on the winner's clothing. There is not much prestige in being the brand preferred by the number two.

So the winner takes all. You are not awarded a *little* more for being 1 / 100 of a second better than second best in the World Cup – you get a hundred times more.

In Chapter 12, on uncertainties, we have touched upon a second reason for the high concentration of wealth. In complex systems, many factors interact and reinforce each other to extreme fluctuations. The larger the systems, the greater the fluctuations can be. A new fad, whether it is a particular film, Facebook, Starbucks or Nintendo Wii video games, can very quickly conquer most of their market category globally, because the interest in the phenomenon is self-reinforcing. When everyone is using a particular product, you will have to use it too, in order to be part of the social interaction in society.

Geographical distances have disappeared in the closely linked, digitized economy, and therefore nothing prevents the best from out-competing and conquering the market from the not-quite-so-good in most parts of the globe. Frank and Cook illustrate the effect with a story about a mediocre opera singer in a medium-sized Italian town. Prior to records and highways, the inhabitants of the city had no other

choice than the local singers if they wanted to listen to opera. Therefore, the local singers were not in direct competition with the stars at the opera houses in the major cities.

The situation is quite different in today's electronic media. Here, the local singer does not have the same protection. You can buy recordings of the best singers and most distinguished orchestras in the world, and they cost the same as a recording with a local vocalist. So why would you choose anything but the best recording? Nobody wants to settle for second best, and therefore the biggest stars earn loads of money, whereas all the other, nearly as good musicians have a hard time making a living.

A person, who is 20 percent better at a job than another, will not get a 20 percent higher salary. In either-or situations it is not about absolute, but *relative* strengths. The best, whether it is by an ever so small margin, gets far more than the second best.

This applies to sports stars and musicians, books, movie stars, supermodels, designers and CEOs alike – although the kind of quality that determines the outcome is obviously different from one industry to another.

In some cases, it's not about better quality; instead it is a slightly lower price that makes the big difference. The American journalist and author Thomas Friedman has described this aspect of globalization in his bestseller *The World is Flat*. The world has become flat because geographical distances in many cases have become insignificant, says Friedman. If the quality is good enough, it means virtually nothing where in the world a product is manufactured – it is simply the total price that determines who gets the order, not geographical proximity. If a company in Vietnam can make traditional Danish rice pudding as well as one in heart of Jutland, and if the price, including the cost of transportation is just slightly lower, well, it will be Vietnamese made rice pudding laying in the Danish supermarket fridges.

For physical products the balance can change if transport prices rise, so it becomes an advantage to keep products manufactured locally. When it comes to goods or services that are completely digital, however, the importance of geography will disappear entirely, as the Internet reaches out further and further.

Increasing returns lead to lock-in effect

Jesus saw it. "Whoever has will be given more," he says in Matthew.

The American economist W. Brian Arthur calls the mechanism *increasing returns*: As the physical production and distribution of products becomes a smaller portion of the total cost, the economies of scale will increase - and thus a firm which succeeds in reaching a certain critical mass, can enjoy a self-sustaining growth: the larger the market, the cheaper it becomes to capture additional customers.

The effect can lead to *lock-in* where a particular company or a technical standard becomes so dominant that – in practice - it is not possible to use alternatives.

Microsoft Windows is an example of lock-in. For most computer users, the simplest option is to use a PC running the Microsoft Windows operating system. This makes it easier to exchange data with all the others who also use Windows, and the choice of accessories and software available is larger. Each new user of Windows helps to strengthen Microsoft's lock-in, which makes it easier to make even more people use Windows.

W. Brian Arthur has been heavily inspired by complexity theory, and he uses mechanisms as feedback, self-organization and evolution to explain what shapes the economic system. For many years he was associated with the Santa Fe Institute in New Mexico, the main research center for complex systems.

W. Brian Arthur points at three main underlying mechanisms that result in increasing returns:

Scale economics. The more of a product's price is based on knowledge, rather than physical materials, production or distribution, the greater the advantage is of selling to many. Hi-tech products such as pharmaceuticals, computer chips, telephone networks or software typically have very high up front development costs compared with the subsequent production cost. It can cost millions to develop new software or a music album - but the marginal cost of producing and distributing each of the following CDs is very limited.

Network effects. Especially in information and communication technology we can observe the "network effect": The more people that use the same product, the more valuable it will be to all the users. The more people who have e-mail, the more useful the system is for everyone - and it's the same way with Microsoft Office, blu-ray discs or profiles on Facebook. When something gets better the more people use it, there will naturally be a strong tendency to create monopoly.

Groove-in effects. For a new product to have a chance of succeeding in a mature market, it must offer a very significant improvement compared to what already exists. Once people have invested the money and time to acquire and master a particular technology, they are reluctant to switch to a new technology or a different make. It is much easier to replace your phone or camera with another one of the same kind, because you know the way it operates and you can immediately transfer settings and data to the new device.

The layout of the computer keyboard is a classic example. The standard layout is known as QWERTY, named after the sequence of letters on the keyboard's top row. QWERTY was developed in the childhood of typewriters and it was designed to minimize that the many mechanical arms that were connected to the keys got tangled. In the meantime, we have long since moved beyond the problems of mechanical dial-arms. Experiments have been made to create keyboards where the buttons are configured differently to make it faster and less exhausting to type. But for anyone who has already learned to use a QWERTY keyboard, it would be a very big transition to learn a new keyboard layout - and therefore QWERTY maintains its position, although there may be better alternatives. The only other type of keyboard with some success is used in a completely different context: the mobile phone keypad for text messages (which is also an excellent example that is not necessarily the best solution which sets the standard).

Coincidences lead to a tipping point

When a new market or a new technology emerges, there is a period in which things "ferment". It is still impossible to tell which technology will become the dominant. When the videocassette was invented, it was uncertain for a long time whether it would be VHS or Betamax, which became the dominant standard. We see the same type of format war in computer games (Play Station, Xbox, Wii) and operating

systems for smartphones (Windows, Android, iPhone or Blackberry). At some point, one of the players will reach a tipping point where there's enough users to set a standard - and once there is critical mass, it becomes a self-reinforcing process that pretty quickly makes everybody switch to the winning format.

The technology ends up dominating, is not necessarily the one that is objectively best. There may well be better solutions in the field. The key is simply to be the first technology that achieves the critical mass of users.

It is not a straightforward and predictable process. As W. Brian Arthur points out, it is often small nudges and coincidences that decide the outcome: a good review in the media, a legislative amendment, a conversation at a dinner party that leads to the first large order ... Or it may be a wild bet that happens to succeed: that you hire the right actor for an advertisement, that you have the best lawyer, a lobbyist with exceptionally good relations, or choose the most savvy manager. As Brian Arthur puts it: "Small, random events are enhanced by positive feedback."

By selling a product very cheaply - or simply give it away - you can reach a critical mass of users. Many software companies make their programs or service available for free (browsers, search engines, maps, etc.), hoping to retrieve the money later when they have established a sufficient base of users to be indispensable in their genre. This is part of the explanation that we are moving towards an economy based on many services being free.

It's about owning the platform

The three drivers, W. Brian Arthur has described - *Scale economics, network effect and groove-in effects* - create a very strong tendency towards monopolies and standards.

Therefore, in theory, we should be moving towards one dominant solution in every genre: One search engine - Google, one global online bookstore - Amazon. One online auction - eBay, one dictionary - Wikipedia, one language - English. One browser, one GPS mapping service, one Metaverse integrating all social services ...

Consumers can now choose from a long tail of obscure niche products, and increasingly, almost anyone will have access to the tools to produce and deliver products on the global market via the web. But the many variations play out on just a handful of global platforms. We are becoming *both* more diverse and more similar.

We touched upon Karl Marx in Chapter 5. I wrote that Marx was wrong in his prediction that the capitalists would monopolize the production apparatus. What is happening instead is democratization, where many people have gotten the opportunity to start their own production, because the most important means of production these days is a computer with an Internet connection - not exactly an exclusive technology. On the other hand, Marx was obviously right that capitalism has a tendency to create monopolies. One can even argue that the real production system today is not all the little machines, but rather the overall system that makes it possible to coordinate their value creation; that the economic weight has shifted to the platforms that millions of global individualists are allowed to interact on. On a big platform, the many small contributions can add up to real, substantial profit. And platforms are largely

monopolistic.

In chapter 5, on participation, we saw that the clear separation between producers and consumers of the industrial age is becoming more blurred. Manufacturers compete to provide products and services that correspond as closely as possible to customers' individual needs. One way to do this is to change the business model: Instead of delivering finished products to passive consumers, a company can create tools and systems that allows the users themselves to configure exactly the product they want - often in collaboration with each other.

Customers - or "users" - are now helping to solve problems.

They create value for themselves and for other users, and in some cases users can even earn a bit of money themselves on what they contribute. But it's the company providing the platform for the activities that really earn money.

YouTube, Facebook, World of Warcraft, eBay, Flickr ... each of them have managed to become the happening place for a while. They are services where the users themselves largely create the activities and experiences taking place – but it's very few of the users who really earn anything from their efforts.

This new business model changes the financial center of gravity, from creating individual products to creating the connections; the framework for activities.

It's all about *context* rather than *content*, it's about making simple and useful tools available to participants, setting standards and establishing norms and culture of cooperation.

Tools, platforms, infrastructure... We only need a very limited number of them. But the few companies that manage to establish themselves as a hub for others' activities are those that truly make a fortune. The rest are working hard for peanuts.

To the aggregator goes the wealth

There are many very powerful examples of platforms that engage millions of people in creating value together. The following cases are examples of how the boundaries between professionals and amateurs are blurring, and how gigantic, commercial interests have engaged in new, more direct forms of interaction with lots of tiny suppliers. The examples also show clearly that the participants are not on equal footing - especially economically:

- The most expensive advertising time on TV is during the finals in American football - The Super Bowl. In 2010, a 30-second spot cost over three million dollars. In the U.S. Super bowl commercials have a status similar to the Oscars ceremony? The media closely follows, which companies choose to advertise, and make special reviews and assessments of this year's Super Bowl commercials. It is one of the few places where a company, which really wants reach the masses at once, can make themselves noticed. It is not uncommon that the ads cost more than a million dollars to produce.

The spot, which ran with the most attention and achieved the greatest popularity in 2010, was for Doritos corn chips. Production cost: about \$ 200. A 24-year-old amateur produced the clip, which showed a dog that cheats his owner for a bag of chips, in three days. He submitted the advertisement to the competition to produce the best Super Bowl Doritos commercial – a competition created by Frito-Lay, the

producer of Doritos chips. The prize was \$ 650,000 – but it yielded over 4000 entries to pick from for the two ads that Frito-Lay wanted to run during the Super Bowl. It was the third time that the Doritos contest was held, and in each of those, the amateur-produced clip became the most talked about among the Super Bowl commercials. The first year the prize was only \$ 10,000 prize - but then, the winning clip only cost \$ 12 to produce.

- For a while, MySpace was the dominant social media on the web. Like Facebook, LinkedIn and many other social sites, the content consists mainly of MySpace users' presentations of themselves and the conversations that take place between users. The particular focus of MySpace is music. Aspiring bands can upload their songs and music videos and create profiles to keep in touch with their fans. As the site grew to have over 100 million users globally, it also became a must for the big, established names to show their videos on MySpace. A number of musicians have been discovered and had their first hit through MySpace, and thousands of bands have sold songs via the MySpace sales service. But still it is exceedingly small proportion of the bands that promote themselves who earn enough to actually making a living from it. The financial gains have primarily gone to the founders of MySpace – in ample measures. Barely two years after starting, Rupert Murdoch's News Corporation bought MySpace for 538 million U.S. dollars.

- eBay, the online auction site, has examined how many people make their living selling goods on eBay. In 2006, 724,000 people in the U.S. got their primary income or a substantial share of their income from eBay. In Britain, 70,000 people got a substantial proportion of their income through eBay. That same year, eBay's founder Pierre Omidyar, was number 32 on Forbes' list of the richest Americans.

Many sites have a certain profit sharing with the users who contribute. The big commercial media companies have made agreements with YouTube to receive some fractions of a cent each time one of their videos is played. The most viewed clips have been downloaded over 100 million times, and in those cases of course, it leads to a considerable payment.

Google AdSense makes it easy for any owner of a website to make profit from the traffic they attract to their site. With a minimum of forms, the owner of even the smallest website can rent part of their screen space to Google, which then fills in ads that correspond to the website's topic. Google and the owner of the website share the revenue from the ads. Again, the relationship around AdSense is the same: there are a small number of big sites that earn well through AdSense, but the vast majority of websites make very small amounts. A website with a few hundred daily visitors will typically earn 100-150 dollars a month from letting Google handle their advertising.

In all these examples two very different participants meet on the same playing field:

- At one end of the spectrum, there are hundreds of thousands of participants who provide content - whether they give good advice, blog or run a website for an interest group. Some of it is absolutely useless to anyone beside his or her most immediate peers, but in many cases the contributions are clearly useful, and often there is a considerable effort in time, equipment, research, etc. behind.

- At the other extreme are the platforms - those who operate the infrastructure that makes it possible for the many small users to participate.

Information wants to be abundant

A lot of the value that's created in the interaction is non-commercial. Obviously, it is a huge benefit for a community that it's possible to coordinate lots of large and small contributions from participants across the globe. For the pure amateurs it doesn't significantly matter, whether they earn a few bucks from their contributions or not. If it is pure hobby, you are usually prepared to pay a bit to pursue your interest.

It is far more problematic for the middle group of suppliers who find it very hard to get a decent payment for their contributions because they are now sharing the platform with millions of "amateurs".

For them the situation is reminiscent of the sailor who's thirsting to death at sea. We have never had access to so much information, we've never spent so much time on information, and we've created an infrastructure that works like a fire hydrant, flooding us with bits, anytime, anywhere. Yet large parts of the media industry are going broke. Television, newspapers, recording industry, movie producers - a large proportion of those who supply the many bits - are in deep economic crisis.

The American writer and futurist Stewart Brand noted way back in 1984 that "information wants to be free". But perhaps one ought to say instead that "*information wants to be abundant*." Bits, from a technology perspective, tend to be plentiful - and thus they also tend to be cheap. It's classic economics; the balance between supply and demand determines the price of a commodity. If there are more sellers than buyers, providers will try to cut prices to compete for customers. And that is exactly what has happened with information - there's just so much of it.

Chris Anderson, who also wrote the book about *the long tail*, in the book *Free* has dissected the mechanisms that make it so hard to earn money by selling bits. We've already been around parts of the explanation in this chapter: that the marginal production costs of bits are going towards zero. Once you've made the first copy, it costs almost nothing to make another copy for the next customer. That makes it a tempting strategy to sell ones' information extremely cheap, hoping to make up by reaching a larger market. To capture customers, a company can lower the price down as far as the marginal cost of producing multiple copies - and that cost is, as mentioned, almost zero. This makes price competition really tough, and it particularly affects the young and smaller players who cannot take home profits by obtaining a large audience and - typically - use it as a platform to sell advertising.

The digitization of information implies a very strong tendency to polarize those who produce it.

Who has the right to profit from the collective creativity?

Another tricky aspect about the distribution of the profits in global digital networks is that the relationship between consumer and producer is far more tangled - and this in turns makes it quite unclear who is entitled to profit from the joint effort.

When a designer designs and sells virtual houses, costumes or swords for use in an online game universe, the value emerges from the designer's effort, but also from the company's investment in creating a platform that makes it possible for participants to meet, play and even create new content. In many cases, what gets built in the 3D universe, is even a joint project between a large number of participants who do not know each other - which only makes it even more complicated when someone tries to pull profit out of the project.

Looking slightly ahead, this will likely not only be an issue for digital objects. As we mentioned in Chapter 6, on going from products to processes, the development of 3D printers and more flexible equipment to produce physical objects means that companies can start to offer their customers the freedom to design their own products, but on the basis of templates and guidelines which ensure that the product works technically and safely in practice.

Widespread use of 3D printers could lead to the emergence of communities with galleries of objects that users have designed, and that others can download, modify and even print out. That development will add further relevance to the question:

Who deserves the profit, when creativity is collective, and when the value can only arise in the interaction between both producer and consumer?

Business must respect the logic of the gift economy

That question leads to another question: Why do the users contribute and help if they do not earn anything from it - and when they can even regularly read in the media about how incredibly rich the owners of the platforms have become?

Clearly, it is not only money that can motivate people to engage with others and to help build a common value. There are other forms of reward. Perhaps the motivation lies in an understanding that it is in one's own interest that the joint project thrives. Perhaps it's simply fun to participate. It can also be as a way of socializing, or driven by a desire to gain prestige and recognition.

For the users who contribute content to social media, it is largely a gift economy. There are many different kinds of motivation and reward in the game, and the correlations between what you give and what you get is far less direct than in the purely economically driven world.

For those who operate the platform, however, it is usually *not* a gift economy: it is pure professional business, subject to the usual demands for higher earnings, growth and efficiency.

So there are two games going on simultaneously, and it is prone to create confusion and misunderstandings when all participants are not playing by the same rules:

Companies will need to respect the sensitive, emotional side of customer relationships. If users feel exploited or cannot identify with those who stand behind the platform, then they will move their activities elsewhere - and without the participation of users, the platform will lose relevance and value.

Which can happen very fast. Digitization means that a new service can grow extremely large very quickly, but it also means that one service can be replaced by another just as quickly. Should anyone invent a search engine that is just a slightly better fit for my needs than Google, I would immediately begin to use it, of course. If a better browser, better photo-processing program or a better social network is offered, we will move to it, suddenly, in droves. Lock-in effects favor the established players, but the Internet is still so young and dynamic that there are only a few clicks between success and failure.

So therefore, the winner can't take it all but has to - to some degree - share. There are limits to how smart and efficiently you can operate a platform with a model based on

user contributions. The platform owner must perform a balancing act of protecting and developing its commercial interests without alienating the users, which are the foundation of the business. There is an implicit social contract between the operator of the platform, and those who use it – nevertheless, it is not always that the owner of the platform is truly responsive to the social side of things. If the system is too restrictive, if the owner gets pushy and aggressive in selling advertising or additional services, or if the company behind the platform is overtly trying to take ownership and control of what users have created, it can lead to revolt, indignation and exodus. The community erodes or it is resurrected in a new medium. From the users' perspective, there are feelings and pride involved - as Facebook has learned repeatedly when their attempts to change the conditions for their use of user data, have lead to global protests from enraged users.

It is a recurring conflict when the owners of a platform try to gain more control over the content, which users have contributed.

It's usually done through subtle adjustments to the license agreement, which users have to sign to gain access to the system. But periodically the platform operators run into scandals because someone actually sits down and reads the conditions and afterwards angrily writes about all the rights, the platform owner discretely has attempted to secure.

Such clashes of interests will continue to occur as the contexts in which users help to create the common value become more serious, committing and potentially profitable. When people spend so much time and put so much of their personality into building up services such as Facebook or 3D online worlds, it's no longer just for fun, if their effort are misused or appropriated. But at the same time, it is getting increasingly tempting for those who own the platform, to exploit the valuable and personal information.

If the winner takes too much, the foundation crumbles

In Chapter 8, on leadership in networks, we found that the manager's role changes when we organize ourselves in networks of more equal participants. Power is changing; from something one *takes* to something you *are given* from others because they choose to be coordinated.

Similarly, a company that is based on user participation has to earn their position as a platform. The interaction must be a win for both parties. If users don't get back more than they give, then there is no idea for them in attending.

It is important to understand that users do not contribute in order to create value for the platform owner. From the user's point of view, they are participating in a community; they see what's going on as *our* interaction, in which we all help to determine the outcome. The platform operator cannot expect to control the creation of value. You have to let go and hope for value to emerge in the shared process.

The technology means we can connect our resources and work together in a much more diverse and nuanced interaction.

It's one of the great opportunities of our times that digital networks will make it easier to create win-win cooperation and prosperity for all.

But the very same technology can also undermine the interaction because it can create such great differences between the participants that it no longer makes sense to cooperate. If only one party reaps all the benefits, the rest will obviously not contribute to the interaction with the same enthusiasm - and thus we lose the basis for

a plus sum game and the added value that could emerge from it. This applies to business as well as to the overall cohesiveness of society. In this sense, it's similar to the Tragedy of the Commons mechanism, and the Prisoner's dilemma, where the tendency of the individual participants to hog resources can lead to a systemic crash, which hurts everyone.

Without some degree of equality and fairness, we will miss the prosperity that could be achieved for everyone. In the worst case you get war, when the dissatisfaction reaches the point where the parties start fighting each other.

That's our challenge: to ensure that all parties will share the benefits, while consciously counteracting the tendency for the winner to take all.

The method is - again - that we learn to see ourselves in a larger context, and remember the importance of contributing to the community we depend upon.